



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,403	08/27/2001	Jochen Antkowiak	2345/162	5116
26646	7590	08/09/2005	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004				DEPPE, BETSY LEE
		ART UNIT		PAPER NUMBER
				2637

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/914,403	ANTKOWIAK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Betsy L. Deppe	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication;
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 May 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 9-16 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
  - 10) The drawing(s) filed on 21 August 2001 and 23 May 2005 is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see page 10, filed May 23, 2005, with respect to the rejection(s) of claim(s) 9-16 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Makiyama et al. (US Patent 5,640,198) and Matsui (US Patent No. 6,050,731).

### ***Drawings***

2. The drawings were received on May 23, 2005. These drawings are not acceptable because the "Replacement Sheet" label is not placed in the top margin of the page, i.e. the area located above the page numbers. Furthermore, in Figure 2, only reference numbers should be used to identify the elements for clarification. Corresponding changes should be made to the detailed description of Figure 2.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

Art Unit: 2637

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the component for "centrally comparing the source signals to a quality measure . . . wherein the quality measure is demanded by a selecting user" as recited in claims 9 and 15 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. The claims are objected to because of the following informalities:

claim 9 should be rewritten to recite the "centrally comparing" on line 6 prior to the "performing" step on line 4 since it occurs prior to it (see "before performing the signal analysis" on lines 6-7);

in claim 11, lines 1-3, the Examiner suggests changing "wherein the method . . . source signals" to "wherein the source signals include video signal, digital signals, measurement signals and sound signals" for clarification. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2637

7. Claims 9-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

8. With regard to claims 9 and 15, the specification does not describe "centrally comparing the source signals to a quality measure before performing the signal analysis and the retransmission" in claim 9, lines 6-8 and claim 15, lines 12-14. It is unclear how the source signals are "centrally compared" (emphasis added). Furthermore, it is unclear how the results of the "centrally comparing" step relate to the other steps. Therefore, one of ordinary skill in the art is unable to make and/or use the invention.

9. With regard to claims 9 and 15, it is unclear how to perform signal improvement on inferior quality signals with respect to the data format in combination with the "performing analysis" step in the respective claims. According to the detailed description, the data format is converted if the input format differs from the desired format which corresponds to the "performing analysis" step in the respective claims. The specification does not describe any additional processing with respect to data format which may be interpreted to correspond to "performing signal improvement on inferior quality signals with respect to the data format." Therefore, one of ordinary skill in the art is unable to make and/or use the invention.

10. With regard to claim 10, the specification does not describe a method comprised of the steps recited in claim 9 in combination with (i.e. "further comprising") the steps

recited in claim 10. Based on the detailed description, the “performing” steps recited in claim 10 overlap those in claim 9. For example, the two “performing” steps recited in claim 10, lines 6-9 are described as part of the “performing” steps recited in claim 9, lines 5-6 and 9-12, respectively. Therefore, it is unclear how to use a method that performs the four “performing” steps.

11. With regard to claim 12, the detailed description does not describe “signal analysis that is switchable by a subscriber via the reverse channel.” It is unclear how the signal analysis is switched.

12. The dependent claims are rejected under the same ground(s) as the respective independent claims.

13. Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

14. With regard to claims 9 and 15, it is unclear how the “centrally comparing” step on lines 6-8 and 12-14, respectively, relates to the other two performing steps.

15. In claim 10, it is unclear how the “analyzing signals to be processed” on line 4 relate to the “demultiplexed signals” on line 2.

16. With regard to claim 13, it is unclear how the recited limitation relates to the steps in claim 9 since claim 9 does not mention “decisions on the signal analysis.”

17. Claim 14 recites the limitation "the signal format" in line 2. There is insufficient antecedent basis for this limitation in the claim. Furthermore, it is unclear how this step relates to those recited in claim 9.

18. With regard to claims 15-16, it is unclear how the steps/functionality recited in claim 15, lines 9-18 relate to the central communication network station, the demultiplexer arrangement, the signal-analysis arrangement, and/or the signal processing arrangement.

***Claim Rejections - 35 USC § 103***

19. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

20. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Makiyama et al. (US Patent No. 5,640,198 cited in the Office Action mailed November 19, 2004) in view of Matsui (US Patent No. 6,050,731).

21. With regard to **Claims 9 and 15**, Makiyama et al. discloses an image-information control device that provides for a method for transmitting digitized broadband data which are supplied by various sources for retransmission, and which are selectable by a user via a reverse channel (figures 4 and 6 and the corresponding description in col. 5, lines 23-60 and col. 6, lines 5-39), wherein first performing signal analysis on source signals (first, a communication capability is negotiated; Col. 6, lines 47-51), and, if necessary (in the terminal using QCIF data; col. 5, lines 54-55), converting a data

format of the source signals (col. 5, lines 48-15). Makiyama et al. also teaches performing signal improvement with respect to the data format via the format conversion. However, Makiyama et al. does not teach comparing the source signals to a quality measure before the retransmission (wherein the quality measure is demanded by a selecting user), and performing a signal improvement on inferior quality signals with respect to the errors of the source signals.

Matsui teaches comparing source signals to a quality measure (i.e. "check the quality") and performing signal improvement with respect to the errors wherein the special signal improvement include error correction (see "correcting errors" in abstract). (See the abstract) It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Matsui with that of Makiyama et al. before retransmission of the signals in order to avoid error propagation as the signals are retransmitted. Although Makiyama et al. in view of Matsui does not teach comparing the source signals before performing signal analysis, it is an obvious matter of design choice whether to perform the analysis or compare the signals first. These two steps are independent and the order of the steps does not affect the results of the signal improvement step.

22. With regard to **Claim 10**, Makiyama et al. in view of Matsui discloses the claimed invention including demultiplexing multiplexed data streams to demultiplexed signals, if necessary ("in case of" in Makiyama et al., col. 5, lines 48-60) before performing the signal analysis; and multiplexing the demultiplexed signals (see Makiyama et al., col. 6, lines 51-57; col. 7, 31-34). All other features of the claim correspond with (and are

similarly as) subject matter mentioned in the rejection of Claim 9 above, applicable hereto.

23. With regard to **Claim 11**, Makiyama et al. in view of Matsui discloses the claimed invention including processing at least one of video signals, digital signals, measurement signals, and sound signals (see Makiyama et al. , col. 1, lines 8-14; col. 5, lines 10-20).

24. With regard to **Claim 12**, Makiyama et al. in view of Matsui discloses the claimed invention including signal analysis being switchable by a subscriber (user terminal) via the reverse channel. (See Makiyama et al., col. 5, lines 35-46).

25. With regard to **Claim 13**, Makiyama et al. in view of Matsui discloses the claimed invention including decisions on the signal analysis being from a table. (See Makiyama et al., col. 6, lines 57-60).

26. With regard to **Claim 14**, Makiyama et al. in view of Matsui discloses the claimed invention except for converting the signal format for a return path. It would have been obvious to one of ordinary skill in the art at the time the invention was made to convert the signal format for a return path based on the desired signal path of the receiving device on the return path.

27. With regard to **Claim 16**, Makiyama et al. in view of Matsui discloses the claimed invention including a control device coupled to the demultiplexer arrangement (figures 4 and 7; col. 6, lines 41-46 and 51-53).

***Conclusion***

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (571) 272-3054. The examiner can normally be reached on Monday, Tuesday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272 - 2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Betsy L. Deppe  
Primary Examiner  
Art Unit 2637